

```
>
> If you have an old multi-element TV antenna, you can prune it to 2
> meters. I measured 9 dBd on my 6' 5-element job. I used a plan out of
> Ham Radio (snif), and added a gamma match made from aluminum/plastic
> tubing purchased at a hobby shop. The whole thing took a couple
```

> weekends because I had to design the gamma match hardware.

>

> Yagis are not mysterious. Just resonate the driven element on the boom,
> then cut the reflector +5% and the directors -5%. Then rematch the DE
> with a gamma, hairpin, or other match of your choice. If you want the
> bandwidth to be wider, use larger-diameter elements.

>

Everyone seems in agreement that larger diameter elements give wider bandwidth, yet when I tried playing with the Yagimax program that is floating around the net, it seems to indicate the opposite, at least in terms of SWR (the gain and F/B are less definitive). I wanted to try mininec on the same examples, but it is not very user friendly. I guess I shouldn't expect much out of these antenna design programs, but I was hoping at least for indications in the right direction. I assume that I must be doing something wrong. Should I not be using SWR as a criteria for bandwidth? Is there a DOC file explaining how to use mininec (I have seen a help file which describes how to input the data for a simple dipole, but it doesn't go into multi-element antennas, and doesn't explain how to handle different feed arrangements. I also don't understand the vert/horiz/combined components in the output)? Anyway, I too am trying to put together a Yagi, but have had a hard time trying to find tubing of the recommended diameter, and was hoping to find out how the results would change with different size tubing. Also, is there a rule of thumb for spacing of gamma and "T" matches, relative to tubing size? One old timer told me to look up the charts relating spacing and wire diameter to impedance, for such things as twin lead etc., and find where the curve indicates 300 ohm (this was actually for a J-POLE design). Is this correct (it would seem to be the way J-poles are designed at least, since some are made from 300 ohm twinlead, and the 1/2" pipe version seems to approximate 300 ohms as well), and if so where does the 300 ohms come from, and is this different for different types of antennas? Is the spacing in a T-match or gamma match obtained in the same way? Sorry for the number of questions, but I figured it was better than 10 separate posts.

One additional unrelated question. How important is it to have a true ground, when using a J-POLE antenna? I run my 2-meter packet rig off a car battery, and the system is not grounded anywhere, except perhaps at the computer (since even the TNC runs off an isolated transformer). How much would grounding help performance, and where should the system be grounded, at the antenna or at the transmitter, or both?

Thanks in advance. 73 B.J. N3JLQ

Date: 28 Feb 93 11:49:00 GMT

From: agate!howland.reston.ans.net!gatech!destroyer!iunet!

hal9k!.phillip.laird@ames.arpa
Subject: ADVICE ON MOBILE RIG IN F
To: info-hams@ucsd.edu

>I'm seriously considering buying a Ford Ranger and want to install a UH
>radio in it. I'd be interested to hear from anyone who is using VHF or
>rigs in a Ranger. Power output will be about 25 watts and I'll probably
>use a permanent roof-mounted antenna. I'm mainly interested in advice o
>mounting locations, power & antenna cable routing, noise problems,
>on-board computer problems, etc.

>
>Thanks & 73....

>
>Mark AA7TA

I have used three different radio types in the '91 Ranger I own. None
of the radios were rpresented with on-board electronics problems. I
always mounted a 5/8 wave in the center of the top of the cab. It works
very well with Alinco DR110/112, Kenwood TM241, Kenwood 751. I did not
notice any interference. However, I did mount a Uniden HR2510 and
placed the 1/4 wave antenna at the fron of the bed with a spring and got
some cross- interference from the 2 meter side. It sonds like an
oscillation of some type. It is only noticeable every 100 KC's. These
are the only problems I have seen.

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very well with Alinco DR110/112, Kenwood TM241, Kenwood 751. I did not
notice any interference. However, I did mount a Uniden HR2510 and
placed the 1/4 wave antenna at the fron [1;35;40m those persons whom are only 18
years of age or older. These conferences [0m

[1;35;40m are:

[0m

[1;35;40m

[0m

[1;35;40m *REC.HUMOR

[0m

[1;35;40m *REC.HUMOR.FUNNY

[0m

[1;35;40m *SPEAK_UP ANONYMOUS

h ground is required. At VHF you can
make

quick portable antennas like this by simply rolling back a quarterwave
section of braid from a piece of coax. The inner becomes the monopole

(continued next message....)

. CNet 1.21 . The HAM Connection BBS, 409-833-1795 14.4K Hayes V.32BIS/V.42BIS

| HAL 9000 BBS +1 313 663 4173 or 663 3959 | Four 14.4k v.32bis dial-ins |
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Date: 2 Mar 1993 05:59:15 GMT
From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!cleveland.Freenet.Edu!
aj008@network.UCSD.EDU
Subject: For sale:interesting rf device for experimentation, or parts
To: info-hams@ucsd.edu

Article 10592 of rec.radio.swap:
Path: usenet.ins.cwru.edu!cleveland.Freenet.Edu!aj008
From: aj008@cleveland.Freenet.Edu (Aaron M. Barnes)
>Newsgroups: rec.radio.swap
Subject: For Sale:Studioline Stereo II tv stereo adapter
Date: 2 Mar 1993 05:51:30 GMT
Organization: Case Western Reserve University, Cleveland, Ohio (USA)
Lines: 13
Message-ID: <1musl2INN8ih@usenet.INS.CWRU.Edu>
NNTP-Posting-Host: slc10.ins.cwru.edu

Hello.
I bought this because it thought it was a tv stereo tuner.
But it is for use on cable systems to receive hidden audio signal
s, and I have no use for it.
It has a nice black metal case, power supply, other RF parts.
I will sell it for \$20+shipping.
Thank You.

--
/ / aj008@cleveland.freenet.edu.Huey Lewis and the News
/ / Upgrading your Mcintrash or Impotent Business
\ \ / Machine? Don't bother. Upgrade to an Amiga.
\ \ /Amiga-"We Make Computers for the Masses, Not the Classes."
--

--
/ / aj008@cleveland.freenet.edu.Huey Lewis and the News
/ / Upgrading your Mcintrash or Impotent Business
\ \ / Machine? Don't bother. Upgrade to an Amiga.
\ \ /Amiga-"We Make Computers for the Masses, Not the Classes."

Date: Mon, 1 Mar 1993 21:11:13 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!

bogus.sura.net!darwin.sura.net!sgiblab!a2i!davidj@network.UCSD.EDU
Subject: IC-W21AT - an opinion
To: info-hams@ucsd.edu

In <1993Mar1.182939.25686@cbnewse.cb.att.com> k9un@cbnewse.cb.att.com (j.w.ague)
writes:

>I was sadly disappointed when I got the chance to really play (and compare)
>the radio at the store :-(

Did you compare RF performance, other than sensitivity? (sensitivity to i
intermod,
selectivity in and out of band, etc? Some of the other Icom attempts
at wideband receivers haven't been so hot.

> 2) The receiver sensitivity on the out of (ham) band frequencies was
> considerably less than that of the W2 (at least in the
> 800MHZ range). Both W21 and W2 antennas were used on both
> radios in the test.

Any idea how big the difference was?

> 3) The W21 stock antenna is very tightly tuned to the ham bands thus
> affecting the broadband receiving capabilities. Had I bought
> the W21, I would have bought an extra W2 antenna.

This is probably not a bad idea; since the PRO-30 days we've learned to
carry around several different antennas to make things work nicely.

>For me, this radio (W21) did not pan out as I had hoped. I am now a happy
>owner of a W2. ICOM needs to address the receive audio problem for sure.
>On the positive side, ICOM has gone back to supporting the "standard" ICOM
>speaker mic accessories on the W21. I never did understand why they went
>to the new configuration on the W2! I suppose there are some people who
>like seperating the audio from the 2 receivers. It seems that they could
>have provided that capability without changing the basic configuration.

>Wes Ague - k9un

Hope we can get some more info from your comparison, as the 21 hasn't made
it to all the stores yet.

73 David Josephson WA6NMF

--

David Josephson <davidj@rahul.net>

Date: Mon, 1 Mar 1993 22:39:32 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
bogus.sura.net!darwin.sura.net!mlb.semi.harris.com!spuds.mlb.semi.harris.com!
rliles@network.UCSD.EDU
Subject: Info Request on Antenna > AS-1887A/PRC-74
To: info-hams@ucsd.edu

I have acquired a portable, field antenna for use between 3-18MHz. The antenna was manufactured ~1987 by Hughes Aircraft Co. I would like to have the spec sheet or at least the power rating for the antenna.

This is the marking info:

ANTENNA
AS-1887A/PRC-74
HUGHES AIRCRAFT CO.
P/N 1550159-100 US

If there is anyone with access to the specs or can point me in the right direction, I'd appreciate it.

Ray

WA4VME	Harris Semiconductor
Ray H. Liles	Mail Stop 58-032
rliles@heimdall.mlb.semi.harris.com	P.O. Box 883
	Melbourne, Florida 32902
	407-729-4640 (Office)
	407-729-4029 (FAX)

Date: 1 Mar 93 22:58:46 GMT
From: news-mail-gateway@ucsd.edu
Subject: Info wanted on HP 1707B scope
To: info-hams@ucsd.edu

I'm looking at buying a HP 1707B. Does anybody know the specs of this device? How old is it? Any estimate how much its worth?

Mail replies to me please.

72

Kevin Purcell N7WIM / G8UDP
a-kevinp@microsoft.com

"We conjure the spirits of the computer with our spells"

Date: 28 Feb 93 12:18:00 GMT
From: agate!howland.reston.ans.net!gatech!destroyer!iunet!
hal9k!.phillip.laird@ames.arpa
Subject: QSL HELP PLEASE
To: info-hams@ucsd.edu

>CT1DRE wants me to QSL direct, but I don't have access to
>a Foreign Callbook, could someone help me out please?
>
>Alsoe does anyone have QSL information for the following
>V31RL (can't use ARRL Outgoing)
>LY2ZZ
>S57EK

CT1DRE: Sebastiao Luis F Ferriera, Rua Joao Deus 400 1-E, Tires
P-2775 Parede Portugal

V31RL: No information in 1992 Callbook- Belize - Call not listed
LY2ZZ: Radio Club, Box 71 235400 Shauliai Bulgaria
S57EK: No Information in 1992 Callbook

You might drop the ARRL a line asking where S57 is located, I don't at
this time know.

. CNet 1.21 . The HAM Connection BBS, 409-833-1795 14.4K Hayes V.32BIS/V.42BIS

HAL 9000 BBS +1 313 663 4173 or 663 3959	Four 14.4k v.32bis dial-ins
Public Access QWK-to-Usenet gateway	With PCBoard 14.5aM & uuPCB
+-----+-----+-----+-----+	
Member of EFF, ASP, & ASAD	1.5 Gigabytes Online Service since 1988

Date: Sat, 20 Feb 1993 14:01:00
From: haven.umd.edu!darwin.sura.net!sgiblab!munnari.oz.au!jabaru.cec.edu.au!
csource!gateway@ames.arpa
Subject: R-648/ARR-41 info needed
To: info-hams@ucsd.edu

> Does anyone have any experience with the R-648/ARR-41?
> These have been in stock with Fair Radio sales for a number of
> years, and they go for \$195 checked.

Yes sir, I had me one of these, back a spell.

>

> The radio is described as an airborne HF receiver, 190-550 khz and
> 2-25 Mhz coverage. It has digital-mechanical tuning and mechanical
> filters for 1.4 and 9.4 Khz. Requires 24V at 4A, and weighs 35 lbs.

>

> Is this a mini R-390 or just another boat anchor? What is the vintage?
Well to start with, they use a dynamotor this produces the HT it is NOISY so
right off, you will need a P/su. It is very basic and is older than the R390
and
if my memory serves me correct (an't been so good lately) early 50's

> What company made this pig(let).

Fair still listed it in their 1992 catalog

>

I reckon the R392/URR is better more modern 60's but the R-648/ARR-41 is not
bad
it also uses a pto with dual conversion. The first conversion uses a xtal osc
only does
am/cw, cw gives you the 1.4khz filter and am the 9.4khz too wide.
> Worth tinkering with?
Yes if you have spare tubes.

Leroy.

BTW if you are into surplus military radio's let me know, I wouldn't mind jawin
with you again
some time.

X KWQ/2 1.0C X "Beam me up Scotty, there is no intelligent life here"

* Origin: Biz-Nice! S.Oz Business BBS! 4 Lines 08-269 7029/7809 (3:800/851)

Date: 28 Feb 93 11:39:00 GMT
From: dog.ee.lbl.gov!hellgate.utah.edu!caen!spool.mu.edu!yale.edu!
newsserver.jvnc.net!howland.reston.ans.net!gatech!destroyer!iunet!
hal9k!.phillip.laird@network.UCSD.EDU
Subject: STRAIGHT KEYS
To: info-hams@ucsd.edu

> >I remember seeing a straight key kit that was really

> >well made at a ham fest.. think it might have been
> >something like a Kent.. does anyone have any idea
> >what it might be.
> >
> >thanks and 73s
> >Jeff, AC4HF

>Kent Engineers in the UK. They make a really nice solid key. Similar
>to the old British Post Office 610 key. (Much better than the standard
>in my opinion). In the US, Palomar Engineers in CA sell them (about \$10
>I think). Pricy, but nothing around comes close to the quality or feel.

At the Orange, Texas HAM-FEST, a vendor sold these in the bug, paddle
and straight key variety. Looking at these items, a person could easily
see how well constructed they are. But, none were \$100.00 US. All of
these were priced lower and also carried the description 'Kit'. I'll
try to see if anyone from the Orange, Texas ARC can tell me who the
vendor was and his address if anyone is interested.
eers in CA sell them (about \$10>I think). Pricy, but nothing around comes close
to+'.+''..+...+...+...+~.+p.+h.+_.+R.+J.

. CNet 1.21 . The HAM Connection BBS, 409-833-1795 14.4K Hayes V.32BIS/V.42BIS

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+-----+-----+-----+-----+
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Date: 2 Mar 1993 05:58:38 GMT
From: sdd.hp.com!swrinde!gatech!usenet.ins.cwru.edu!cleveland.Freenet.Edu!
aj008@network.UCSD.EDU
Subject: Wanted: C band feedhorn
To: info-hams@ucsd.edu

Hello.
I need a used, functional C band feedhorn.
Please let me know if you can help me out.
Thank You.

--

```
    / /    aj008@cleveland.freenet.edu.Huey Lewis and the News
    / /    Upgrading your Mcintrash or Impotent Business
\ \ / /    Machine? Don't bother. Upgrade to an Amiga.
\ \ /Amiga-"We Make Computers for the Masses, Not the Classes."
```

John Hammond
WB7ODP

Date: Mon, 1 Mar 93 21:01:24 GMT
From: qualcom.qualcomm.com!walter!porthos!dancer!whs70@network.UCSD.EDU
Subject: Yet Another License Datapoint...
To: info-hams@ucsd.edu

In article <1993Mar1.190710.3344@CSD-NewsHost.Stanford.EDU>
paulf@umunhum.stanford.edu (Paul Flaherty) writes:
>Passed my Extra on 12/19/92; got the real piece of paper on 2/22/93.
>--Paul Flaherty, N9FZX | "We are meant to be masters of destiny, not victims

Ditto, upgraded to general on 12/19/92 and received the paper on
Saturday 2/28. About 10 weeks.

Bill K2UNK

Date: Tue, 2 Mar 93 00:02:19 GMT
From: btree!bly@network.UCSD.EDU
To: info-hams@ucsd.edu

References <Pine.3.05.9302151902.A5630-a1000000@uafhp.uark.edu>,
<1993Feb17.153513.18447@cabot.balltown.cma.COM>, <1m3ooqINNatc@mojo.eng.umd.edu>
Subject : Re: Cellular Safety

In article <1m3ooqINNatc@mojo.eng.umd.edu> chuck@eng.umd.edu (Chuck Harris -
WA3UQV) writes:
>In article <1993Feb17.153513.18447@cabot.balltown.cma.COM>
perley@cabot.balltown.cma.COM (Don Perley) writes:
>>In article <Pine.3.05.9302151902.A5630-a1000000@uafhp.uark.edu> Peter Laws
<plaws@uafhp.uark.edu> writes:
>]
>]]Another nit to pick: cell phones transmit all the time while the other 2
>]]types of radio listed are intermittent. Some kind of time measurement
>]]should be listed to make the figures listed more useful (ie. W/kg/s).
>]
>]on the plus side, cell phones will automatically cut the power back
>]when it's not needed. You can reduce your exposure just by calling
>]from good locations.
>
>Yes, but when the power absorbed by your head makes the signal too weak

>for the cell to hear, the cell will tell your radio to turn up its power.
>
>900 Mhz really has no business being near your head,...or vice versa.
>

I recommend the Mitsubishi 22X (7 ounce pocketphone) to any heavy cellphone user as I believe it is one of the safest. When in battery conserve mode, it reduces the power as much as possible. You can program the display to show you receive signal strength and xmit power. It really does reduce power below the .6w often. It also can be programmed to xmit only when you are talking (VOX).

All the medical stuff I've read says its probably not a health risk at 800-900Mhz other than RF heating to the scalp, but I try to keep usage to a minimum and do all the long-winded stuff on a wire-phone or in the car. The 22X drops into a car mount and then allows hands-free and handset operation at a full 3w to external ant. Also with this cellphone and several other pocket models I've seen, you can turn the handset volume all the way up, and hold the phone like a handi-talkie or lay the phone on a table and use it like a speaker phone. This gets the RF away from your body.

The user's manual for my 22X pocket cellphone suggests using the phone with the antenna pulled out and holding the phone horizontally across your face as you would a normal phone handset. If held correctly, the 3" antenna will extend out radially from your head at a distance of several inches. I notice no difference in communications quality when the antenna is held horizontally vs. vertically (slight signal loss when the antenna is pushed back into the phone).

If I hold the phone incorrectly with antenna touching or almost touching the side of my head, I do notice RF heating on my scalp and sometimes headaches after extended use.

COST:	\$650	22X cellphone w/ batt
	\$600	car mount, hands-free kit, 3w amp, car ant, etc.
	\$35	extra battery; after-market; large: 2.4 hrs talk; 24 hr stdby

Waiting for Qualcomm CDMA low-power spread-spectrum cellular, Then this shouldn't be an issue.

Roger Bly
Brooktree Corp
bly%btree@ucsd.edu

Date: Tue, 2 Mar 1993 03:39:34 GMT
From: esseye!jongsma@uunet.uu.net
To: info-hams@ucsd.edu

References <darknite.730869070@camelot>, <laird.730875415@pasture.ecn.purdue.edu>,
<1993Mar1.025618.9392@netcom.com>
Reply-To : jongsma@esseye.si.com
Subject : Re: Info needed on GPS

There seems to be a great deal of interest in GPS on this newsgroup. I'd like to take the opportunity to plug the GPS Digest, a moderated mailing list that I co-moderate.

The GPS Digest was formed last year for just such discussions. It has a subscriber list of well over 100 readers and is a good source (IMHO) of data on GPS activities.

Requests for submissions should be made to gps-request@tw4.si.com (note that this is not an automated service. It ends up in my mailbox, so those of you used to listserv need to be patient. As soon as I return from a business trip, I'll process your request.)

Currently, we try to limit issues to every one or two weeks. No sense in flooding mailboxes with more fluff! This depends on submissions of course...

Ken

--

Ken Jongsma
Smiths Industries
Grand Rapids, Michigan

jongsma@benzie.si.com
73115.1041@compuserve.com

End of Info-Hams Digest V93 #275
